ASU Department of Technology Home Wind Power Workshop with Mick Sagrillo
November 15 & 16, 2002, Kerr Scott Hall, Appalachian State University

Name:_____

Address:_____ City:_____ State: _____ Zip:_____

Telephone:_____ Fax:_____ E-mail: _____

How did you hear about this workshop?_____

Enclosed is my registration fee for both days: Pay by cash or check written to the Home Wind Power Workshop.
$185 per person for early registration for both days, postmarked by November 4, 2002
$225 per person after November 4, 2002
$85 for students with school identification for early registration by November 4, 2002
Cancellation Policy: Registrations may be canceled for a full refund by November 6, 2002. No refunds will be allowed after that time, though another person may be substituted in your place.
Send Payment to: Home Wind Power Workshop - ASU Box 32122, Dept. of Technology, Appalachian State University, Boone, NC 28608
Questions? Call the ASU Dept. of Technology at 828-262-6358 or 6361. E-mail: scanlindm@appstate.edu
www.ncwindpower.appstate.edu

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Appalachian State University
ASU Box 32122
Boone, North Carolina 28608

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WIND POWERING AMERICA

Appalachian State University's Department of Technology

Presents a

Home Wind Power Workshop

With Mick Sagrillo

November 15 & 16, 2002
Kerr Scott Hall, Boone, NC

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An Important Technology

In many places around the world today wind energy systems are the most cost effective and environmentally friendly method of electricity production. Electricity is being produced with no air pollution for less than $.04/KWH. The technology has really caught on and the industry is growing rapidly. Last year almost $2 billion was spent installing 1,700 MW of wind technology in the US. Worldwide annual growth rates have averaged over 25% for the last decade, making wind energy, by far, the fastest growing energy resource.

This growth has not just been in the large scale technology. There are more than 50 manufacturers of small wind turbines worldwide and over 60,000 small wind turbines have been built and sold in the last 20 years. These turbines come in many shapes and sizes. They are reliable, versatile, easy to install and operate. They have low installed costs and require little maintenance. According to the US Department of Energy, small wind energy systems can lower your electric bill by 50 – 90%, help you avoid the high costs of having utility lines extended to remote locations, prevent power interruptions, and they are non-polluting.

The Workshop

This two day workshop will be led by one of the world's leading small scale wind experts. It will introduce participants to all aspects of wind energy system design and construction. Topics include: an overview of wind systems, utility intertie and offgrid systems, characteristics of home scale turbines available in the market place today, assessing wind resources, improving wind sites, examples of good and bad siting, estimating power and energy output, tower technology and economics, legal aspects and utility concerns, wind/PV hybrids, system sizing, and how to do it right.

Examples of home-scale wind turbines will be on display during the workshop. Participants will also receive a comprehensive collection of reading and design materials, product literature and the US Department of Energy's new publication: Small Wind Electric Systems. All participants will receive a copy of the new interactive CD wind map for North Carolina. This map allows the viewer to select any spot in NC and get comprehensive wind data for that location.

General Information

Registration fee: Includes the two day workshop, notebook, two lunches, coffee breaks, interactive CD wind map for North Carolina, product literature from small wind manufacturers, & the DOE publication "Small Wind Electric Systems".

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Workshop Location: The workshop will be held in Room 17 of the Kerr Scott Hall, Appalachian State University. It is located at 397 Rivers Street; right across from the Appalachian State University power plant.

Parking: Parking is available right next to the Kerr Scott Hall in the parking deck for $5/day

Lodging: Nearby hotels include:

Best Western: 828-266-1100
Boone Trail Motel: 828-264-8839
Comfort Suites: 828-268-0099
Graystone Lodge: 828-264-4133
High Country Inn: 828-264-1000
Quality Inn: 828-262-0020
Red Carpet Inn: 828-264-2457

Questions: Call 828-262-6358 or 6361
Email: scanlindm@appstate.edu
Website: www.ncwindpower.appstate.edu

Home Wind Power Workshop Agenda

Registration will be from 8:30 AM – 9 AM on Friday
Workshop will run from 9 – 6 on Friday & 9 – 5 on Saturday

Day 1
Introductions & Scope of Workshop
Review Notebook & Itinerary
Bibliography & Sources
Break
Overview Of Wind Systems & Efficiency
Utility Intertie vs Off-grid systems
Sizes of available equipment
Lunch
The wind resource: quantity
The wind resource: quality
Break
How to improve your wind site
Examples of good & bad siting
Determining wind speed at hub height

Day 2
Tower types & tower heights
Tower economics versus height
Break
Utility-Intertie systems; how the equipment works
Legal aspects and utility concerns
Lunch
Wind/PV hybrid systems
System Sizing
Break
An exercise in getting it right
How to do various installations: slide overview

Instructor Profile

Mick Sagrillo is one of the world's small wind experts. He has over 20 years experience with wind technology and founded in 1983 Lake Michigan Wind & Sun, Ltd, a company which manufactures wind generator components & towers, remanufactures and repairs equipment, and installs wind systems. He has been involved in over 700 projects in 46 states and 29 foreign countries. He is also an author and has written many of the most influential articles published on small-scale wind technology. He is the wind editor and a regular contributor of wind power articles to Home Power Magazine; monthly columnist for the American Wind Energy Association's Windletter; columnist for Solar Today magazine and has written various articles on wind power for PV/Wind Energy News and Backwoods Home magazine. Many of his articles have been widely reprinted and translated into other languages. He has led many workshops on wind energy. He is a founding member of the Midwest Renewable energy Association and has served as president of the board since 1991. He has an unparalleled record of service to organizations working to promote sustainable energy and has received numerous awards for his outstanding work. He is currently the owner of Sagrillo Power and Light, a consulting firm specializing in home-sized wind turbine technology and educational workshops.

Sponsors:

- Appalachian State University's Department of Technology
- North Carolina State Energy Office
- North Carolina Solar Center
- Watauga County Center of the North Carolina Cooperative Extension Service
- North Carolina Sustainable Energy Assoc.

Other Upcoming Wind Related Events

1) **Anemometer Loan Program** – This program will make equipment available for up to a year to measure wind resources. For additional information call 828-262-6358 or 6361 or e-mail: scanlindm@appstate.edu

2) **Wind Energy Summit/Conference**- Monday, December 9, 2002 at the Broyhill Conference Center on the campus of Appalachian State University. For additional information call 828-262-3045.

Mick Sagrillo photo courtesy of The Nautilus Institute. www.nautilus.org